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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/633,137	SHAH ET AL.	
	Examiner	Art Unit	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,9-24,26,29-34,36,39 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,9-24,26,29-34,36,39 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Request For Reconsideration

1. Applicant's arguments, see the Request for Reconsideration, filed on 1/31/08, with respect to the rejection(s) of claim(s) 1-4, 6, 9-24, 26, 29-34, 36, 39-40 under 35 U.S.C. 103(a) as being unpatentable over Chiu et al., (hereinafter referred to as "Chiu") in view of Divakaraan et al., (hereinafter referred to as "Divakaran") as set forth in the Office Action of 11/1/07 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Gonzales et al., (hereinafter referred to as "Gonzales").

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6, 9-20, 31-34, 36, and 39-40 are rejected under 35 U.S.C. 103(a) as being anticipated by Gonzales et al., (hereinafter referred to as "Gonzales") in view of Chiu et al., (hereinafter referred to as "Chiu").

Gonzales disclose a method implementable on an encoder for adjusting a coding threshold for encoding a block in an image (Gonzales: column 24, lines 17-36), comprising: encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder (Gonzales: column 10, lines 30-40); encoding, at a second time later

than the first time, a second image representation of the block using second encoding parameters generated by the encoder (Gonzales: column 14, lines 50-67); assessing at least the first and second encoding parameters to determine whether the image is likely stationary (Gonzales: column 15, lines 40-54), wherein the first and second encoding parameters comprise at least first and second quantization parameters (Gonzales: column 16, lines 20-45); and if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block (Gonzales: column 20, lines 45-60), as in claim 1. However, Gonzales fails to disclose using the coding threshold to determine whether the block should be coded or not. Chiu discloses a video coding method including a pre-processing element which executes the option of not coding (Chiu: column 9, lines 25-35: skipping encoding of macroblocks) in order to save the computational load on the available resources of the encoder (Chiu: column 9, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Chiu skipping step into the Gonzales method in order to convey the advantage of alleviating the computational burdens associated with encoding processing to the method of the primary reference. The Gonzales method, now incorporating the Chiu skipping step, has all of the features of claim 1.

Regarding claim 2, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Gonzales: column 4, lines 5-20), as in the claim.

Regarding claim 3, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein said first and second encoding parameters respectively comprise at least first

and second motion vectors (Gonzales: column 15, lines 45-67; column 16, lines 1-5), as in the claim.

Regarding claim 4, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero (Chiu: column 3, lines 50-65), as in the claim.

Regarding claim 6, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds (Gonzales: column 18, lines 25-55), as in the claim.

Regarding claim 9, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time (Chui: column 9, lines 1-10), as in the claim.

Regarding claim 10, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein adjusting the coding threshold comprises increasing the coding threshold (Gonzales: column 19, lines 10-45), as in the claim.

Regarding claim 11, the Gonzales method, now incorporating the Chiu skipping step, discloses further comprising: encoding, a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and assessing at least the first, second, and third encoding parameters to determine whether the image is likely stationary (Chui: column 10, lines 10-20), as in the claim.

Regarding claim 12, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded (Gonzales: column 15, lines 40-55), as in the claim.

Gonzales discloses a method implementable on an encoder for adjusting a coding threshold for encoding a block in an image (Gonzales: column 24, lines 17-36), comprising: encoding, at a first time, a first image representation of the block using at least a first quantization parameter (Gonzales: column 15, lines 5-15) and a first motion vector (Gonzales: column 15, lines 40-67; column 16, lines 1-5) generated by the encoder (Gonzales: column 10, lines 30-40); encoding, at a second time later than the first time, a second image representation of the block using at least a second quantization parameter (Gonzales: column 14, lines 50-67) and a second motion vector (Gonzales: column 15, lines 40-67; column 16, lines 1-5) generated by the encoder (Chui: column 14, lines 50-65); and adjusting the coding threshold in the encoder for at least a portion of the block (Gonzales: column 20, lines 45-60) if the first and second motion vectors are substantially zero (Gonzales: column 17, lines 50-67; column 18, lines 1-14) and if the first and second quantization parameters are respectively less than first and second quantization parameter thresholds (Gonzales: column 16, lines 20-45), as in claim 13. However, Gonzales fails to disclose using the coding threshold to determine whether the block should be coded or not. Chiu discloses a video coding method including a pre-processing element which executes the option of not coding (Chiu: column 9, lines 25-35: skipping encoding of

macroblocks) in order to save the computational load on the available resources of the encoder (Chiu: column 9, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Chiu skipping step into the Gonzales method in order to convey the advantage of alleviating the computational burdens associated with encoding processing to the method of the primary reference. The Gonzales method, now incorporating the Chiu skipping step, has all of the features of claim 13.

Regarding claim 14, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Gonzales: column 4, lines 5-20), as in the claim.

Regarding claim 15, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein the first and second quantization parameters are the same (Gonzales: column 18, lines 25-55), as in the claim.

Regarding claim 16, the Gonzales method, now incorporating the Chiu skipping step, discloses wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time (Chui: column 9, lines 1-10), as in the claim.

Regarding claim 17, Gonzales discloses wherein adjusting the coding threshold comprises increasing the coding threshold (Gonzales: column 19, lines 10-45), as in the claim.

Regarding claims 18-19, Gonzales discloses further comprising: encoding, a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and adjusting the coding threshold in the encoder (Chui: column 10, lines 10-20), as in the claim.

Regarding claim 20, Gonzales discloses encoding, at the first time, the first image representation of the block using intercoding (Gonzales: column 9, lines 5-10); encoding, at the second time, the second image representation of the block using intercoding (Gonzales: column 10, lines 1-10); and adjusting the coding threshold in the encoder for at least a portion of the block if the first and second image representations are interceded (Gonzales: column 15, lines 40-55), as in the claim.

Gonzales discloses a method implementable on an encoder (Gonzales: column 24, lines 17-36) capable of transmitting image information to a decoder (Gonzales: column 12, lines 45-67), comprising: encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder (Gonzales: column 10, lines 30-40); encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder (Gonzales: column 14, lines 50-67); assessing at least the first and second encoding parameters to determine whether the image is likely stationary (Gonzales: column 15, lines 40-54), wherein the first and second encoding parameters comprise at least first and second quantization parameters (Gonzales: column 9, lines 50-60); and if the image is likely stationary (Gonzales: column 16, lines 20-45), as in claim 31. However, Gonzales fails to disclose using the coding threshold to determine whether the block should be coded or not by sending a no code signal to a decoder for at least a portion of the block. Chiu discloses a video coding method including a pre-processing element which executes the option of not coding by sending a no code signal (Chiu: column 9, lines 25-35: skipping encoding of macroblocks) in order to save the computational load on the available resources of the encoder (Chiu: column 9, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary

skill in the art to incorporate the Chiu skipping step into the Gonzales method in order to convey the advantage of alleviating the computational burdens associated with encoding processing to the method of the primary reference. The Gonzales method, now incorporating the Chiu skipping step, has all of the features of claim 31.

Regarding claim 32, the Gonzales method, now incorporating the Chiu skipping step, has discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Gonzales: column 4, lines 5-20), as in the claim.

Regarding claim 33, Gonzales method, now incorporating the Chiu skipping step, has and second encoding parameters respectively comprise at least first and second motion vectors (Gonzales: column 15, lines 45-67; column 16, lines 1-5), as in the claim.

Regarding claim 34, Gonzales method, now incorporating the Chiu skipping step, has wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero (Chiu: column 3, lines 50-65), as in the claim.

Regarding claim 36, Gonzales method, now incorporating the Chiu skipping step, has wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds (Gonzales: column 18, lines 25-55), as in the claim.

Regarding claim 39, Gonzales method, now incorporating the Chiu skipping step, has wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time (Gonzales: column 9, lines 1-10), as in the claim.

Regarding claim 40, Gonzales method, now incorporating the Chiu skipping step, has wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded (Gonzales: column 9, lines 1-15), as in the claim.

4. Claims 21-24, 26, 29-30 are rejected under 35 U.S.C. 103(a) as being anticipated by Gonzales et al., (hereinafter referred to as "Gonzales") in view of Iwata.

Gonzales discloses a method (Gonzales: column 24, lines 17-36), comprising: processing, at a first time, a first image representation of the block including first encoding parameters generated by the encoder (Gonzales: column 10, lines 30-40); processing, at a second time later than the first time, a second image representation of the block including second encoding parameters generated by the encoder (Gonzales: column 14, lines 50-67); assessing whether the image is likely stationary using at least the first and second encoding parameters (Gonzales: column 15, lines 40-54), wherein the first and second encoding parameters include at least first and second quantization parameters (Gonzales: column 16, lines 20-45); and if the image is likely stationary, not updating at least a portion of the block on the display (Gonzales: 22, lines 45-65), as in claim 21. However, Gonzales fails to disclose implementing the method on a decoder and having associated receiving steps as in the claims, as it is only associated with compression. However, Iwata discloses a total image processing system that discloses both the operation of a coder and a decoder in conjunction with the coder (Iwata: column 7, lines 60-67; column 8, lines 1-20) in order to reproduce already compressed video (Iwata: column 1, lines 55-65). Accordingly, given this teaching, it would have been obvious at the time of the invention for

one of ordinary skill in the art to incorporate the teaching of Iwata's use of a decoder into the teaching of the primary reference in order to arrive at a complete image processing system that allows for the pristine reproduction of encoded video information on a display. The Gonzales method, now incorporating the Iwata teaching of a decoder implementation, has all of the features of claim 21.

Regarding claim 22, the Gonzales method, now incorporating the Iwata teaching of a decoder implementation, discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Gonzales: column 4, lines 5-20), as in the claim.

Regarding claims 23-24, the Gonzales method, now incorporating the Iwata teaching of a decoder implementation, discloses and second encoding parameters respectively comprise at least first and second motion vectors (Gonzales: column 15, 45-67; column 16, lines 1-5), as in the claims.

Regarding claim 26, the Gonzales method, now incorporating the Iwata teaching of a decoder implementation, discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds (Gonzales: column 18, lines 25-55), as in the claim.

Regarding claim 29, the Gonzales method, now incorporating the Iwata teaching of a decoder implementation, discloses further comprising: receiving from the encoder (Gonzales: 9, lines 35-45), a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and assessing at least the first, second, and

third encoding parameters to determine whether the image is likely stationary (Gonzales: column 10, lines 10-20), as in the claim.

Regarding claim 30, the Gonzales method, now incorporating the Iwata teaching of a decoder implementation, discloses wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded (Gonzales: column 15, lines 40-55), as in the claim.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

Asr
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April 10, 2008